

NATURE NOTES

WHY ARE THE TREES DEAD?

As you drive along Yosemite roads, you may wonder why there are large stands of dead trees. Some areas were blackened by lightning-caused fires that burned thousands of acres. Although natural succession progresses at a slow pace, shrubs and sprouts from fire-adapted species have spread throughout the burned areas, and small trees are beginning to overtop the brush, hinting at the regenerated future forests growing there.

Other stands of trees show the effects of pine bark beetles. These insects live in the growing tissue between wood and bark, and the young eat their way around trees and limbs, often killing them. Pine engraver beetles have been busy above the east portal of the Wawona Tunnel, displaying their signature symptoms of dead limbs and tops. Bark beetles that kill entire trees are always working too; their evidence can be seen in individual or clumps of reddish or straw-colored pines.

Another busy insect is the lodgepole needleminer. This little gray moth lives inside of pine needles. It avoids becoming a regular menu item for predators by only emerging every other year (odd-numbered years), and so populations can really explode until it actually eats itself out of house and home. Aerial surveys last summer revealed that over 44,000 acres of lodgepole pines around Tenaya Lake have been defoliated, and many of those trees will die. The Ghost Forest wayside exhibit near Tuolumne Meadows details their story.



Young, old, and even dead trees are important in natural areas like Yosemite National Park. While the National Park Service has an effective tree hazard control program, be aware that even green trees occasionally fail, injuring people and damaging property.

FROM THE RANGER'S LOG BOOK AT THE MERCED LAKE RANGER STATION

By Brian Mattos, NPS Forester

I think that I shall never see
A poem more lovely than a tree,
Unless that tree leans hazardous
O'er camps of those who visit us.
For doctors, moms, and lawyers, too,
Don't understand trees like we do.
They must see logs spread all around,
But put their tents twixt tree and ground.
And when winds blow or branches fall,
They worry not one bit at all:
Just stay there in their flimsy tent,
Drowsing, snoring, quite content.
Should we cut all defective trees?
Heavens no, of course not, PLEASE!
Just tell the campers, show them how
Defective trees fall down, KA-POW!
Then when they choose a place to hang out
Trees are what they're thinking about.
They'll choose a place where trees are firm—
No mistletoe, no rot, no worm—
And gaze up from their starry lairs
Worried 'bout giardia, rain, and bears.



A Yosemite fire management crew.

Photo by Brian Grogan

FIRE MANAGEMENT IN YOSEMITE

Fire managers in Yosemite realize that fire has been an essential part of the ecosystem for thousands of years and have used two tools since the early 1970s to restore the benefits of this natural process: *wildland fire* and *prescribed fire*.

Wildland fires that are caused by lightning may be allowed to burn under strictly monitored conditions in certain park wilderness areas. Since 1972, 532 lightning fires have been successfully managed by Yosemite National Park's fire staff. Where it is not prudent to allow fires to burn, the park has a policy of fire suppression combined with a prescribed fire program. *Prescribed fires* are ignited under approved conditions by qualified park fire staff to protect developed areas (like Yosemite Valley and Wawona) and in other areas with unnaturally high amounts of dead and down woody debris. Yosemite has safely conducted 188 prescribed burns since 1970.

All human caused wildland fires are immediately suppressed no matter where they

occur within the park.

All managed burns are normally signed from vantage points or along the roadways. Please heed all warning signs posted in fire areas. Occasionally, trails that are within or adjacent to fires need to be closed for safety reasons. Trail closings will be posted in the Valley's Wilderness Center and at appropriate trailheads.

Currently, there is a moratorium on both types of burning in the National Park System. To continue with fire hazard reduction in Yosemite, crews are manually clearing small trees and brush in Yosemite Valley, Mariposa Grove, and other park areas to prepare the areas for burning at a later date. Alternative methods for dealing with the debris will be experimented with this year as long as the moratorium lasts.

Visitors may obtain more information on Yosemite's Fire Management Program by visiting the exhibits in the Valley Visitor Center. If burning is permitted later this season, locations and status of the wildland and prescribed fires will be displayed in the Visitor Center and on a status board inside the Wilderness Center in Yosemite Village.



Within a few growing seasons of a fire, the forest floor is a lush mat of grasses, shrubs, and flowers.

Photo by Keith Walklet

Fire Safety

Each year campfires, cigarettes, and human carelessness cause unwanted fires in Yosemite. These fires can be prevented by following a few simple rules.

CAMPFIRES

Build small campfires using only established campfire rings. Be aware of conditions such as weather and items nearby that could accidentally catch fire. Never leave a fire unattended. Put out campfires by stirring with water a half hour before you leave the site, and remember to carefully feel charred material to make certain the fire is out. See page 4 for campfire rules.



PORTABLE CAMPING STOVES

Refuel stoves only when they are cold and in a well-ventilated area.



CHARCOAL BRIQUETTES

Because charcoal uses oxygen rapidly, you should never use it in confined spaces, such as tents or vehicles. After use, dunk charcoal briquettes in water until cold. Check them carefully. Never empty hot or warm briquettes in trash dumpsters.



CIGARETTES

Never smoke while walking or in an area with flammable materials. Crush butts completely before throwing them into a garbage can. Never throw cigarettes out of a car window.

SAFE DRINKING WATER

Giardiasis is an intestinal disease caused by *Giardia lamblia*, a protozoan. Associated symptoms include chronic diarrhea, abdominal cramps, bloating, fatigue, and loss of weight. Treatment by a physician is necessary to kill the organism.

Giardia lamblia is carried by humans as well as some domestic and wild animals, and may contaminate lakes and streams. Whenever possible, only tap water should be used for drinking. If using surface water or melted snow, treat by boiling for 5 minutes or by using a Giardia-rated water filter. If used properly, an iodine-based purifier is another alternative.

The National Park Service is working with the U.S. Environmental Protection Agency and the California Department of Health Services to develop a program to ensure that the drinking water in Yosemite is protected. The program, one of the first in California, will be based on an assessment of potential threats to water sources.



TICK-BORNE DISEASES

Be aware that ticks exist in the park, and consult your doctor if you believe you've been bitten. If you are diagnosed with Lyme disease or relapsing fever, and you believe you got it in Yosemite, have your doctor contact the Park Sanitarian at 209/379-1033.